

### **REMARKS**

Claims 1-20 are pending. Of those, claims 1, 8 and 14 are independent.

#### **Allowable Subject Matter**

Applicant acknowledges with appreciation the indication on page 2 of the Office Action that claims 4-5, 11 and 17 define patentable subject but for their respective dependence upon rejected base claims.

#### **§103 Rejection: '091 Patent Taken Alone**

Beginning on page 2 of the Office Action, claims 1-2, 7-9, 13-15 and 19-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,123,091 to Newman ("the '091 patent"). Applicant traverses.

The Examiner asserts that the '091 patent teaches all of the claimed elements of claim 1 except for the claimed second time limit. But the Examiner believes (in the Examiner's phrasing, see page 3 of the Office Action) that the "byte length limit" taught by '091 patent "intrinsically specifies a time constraint for triggering the dispatching of data." Again, Applicant traverses.

The '041 patent arises in the context of computer systems that have a plurality of input devices, e.g., keyboard, mouse, tablet, light pen, dial boxes, switch boxes, etc.; see col. 1, lines 29-35. In the '041 patent, such input devices are referred to as peripheral devices; again, see col. 1, lines 29-35. A goal of the '041 patent is to provide a device (referred to as a "peripheral repeater") that can collect inputs from each of such peripheral devices and then retransmit the same over a single line to the processor; see col. 1, lines 35-41. Fig. 1 of the '041 patent depicts such a system as including a peripheral repeater ("PR") box 21 that receives inputs from a keyboard 23, a mouse 25, a tablet 27, knobs 29 and buttons 31; see col. 2, line 60 to col. 3, line 18.

PR box 21 receives bytes of data representing characters from the various input devices; see col. 11, lines 22-25 and 52-55, etc. Received bytes are stored in various queues and/or buffers, all of which are circular; see col. 9, line 36. The queues are circular because they are of fixed size; see col. 9, lines 36-38.

The “byte length limit” mentioned by the Examiner is related to the fixed size of such buffers. To avoid overflowing the buffers, i.e., to promote draining the buffers, the ‘091 patent teaches sending a packet of accumulated bytes if the number of accumulated bytes reaches a maximize number of bytes that can be included within a packet. As stated by the ‘091 patent in col. 11, lines 18-30 (underlined emphasis added):

All received and transmitted data from the PR box is handled by interrupt routines. There are routines, which occur for example, during the steps of FIGS. 4A-4E, to set up the data packets to be sent from the peripherals to the host. These packets are considered complete if the number of characters received for that peripheral equals the maximum packet size allowed, which is six bytes, or if there is a timeout of the inter-character timer for that peripheral. For example, the tablet report size is 5 bytes so after the fifth byte it will time out and be a completed packet. Intercharacter timeout occurs if approximately two character times pass without reception of a byte.

In the above-quoted passage, “time out” is used to describe what happens when the fifth byte of a five byte maximum is reached. This is somewhat misleading in the sense that the limit upon the maximum number of bytes per packet is not indicative of an elapse of time. Rather, the same action (namely, sending a packet) is taken when the maximum number of packets has accumulated as when the amount of time being monitored by the inter-character timer elapses (or, in other words, when the inter-character timer times out). Hence, reaching a maximum number of bytes is loosely referred to as a timeout by the ‘091 patent.

Nothing about the ‘091 patent suggests any regularity or periodicity with which characters are sent to PR box 21 from any of the peripheral devices 23, 25, 27, 29 or 31. Common experience reinforces this point: each of keyboard 23, mouse 25, tablet 27, knobs 29 and buttons 31 is

operated by a user who typically does not cause such devices to send data in a periodic manner. While not truly random sources of data, such devices are much more similar to being random sources than they are to being periodic sources of data. The Examiner's assertion that the "byte length limit" of the '091 patent "intrinsically specifies a time constraint for triggering the dispatching of data" is not consistent with the context of the '091 patent. How can receipt of a given number of bytes of data from a quasi-random input device such as any one of devices 23-31 be indicative of the elapse of a specific amount of time?

A distinction of claim 1 over the '091 patent is the second time limit. Assuming for the sake of argument that the '091 patent teaches a first time limit, it is unreasonable to interpret the "byte length limit" of the '091 patent as suggesting (much less disclosing) a second time limit.

Claims 2 and 7 depend from claim 1, respectively, and include at least the same distinction as claim 1.

Independent claims 8 and 14 recite features to claim 1 and similarly distinguish over the '091 patent, respectively. Claims 9, 13, 15 and 19-20 depend from claims 8 and 14 and include at least the same distinction as claims 8 and 14, respectively.

In view of the foregoing discussion, the §103(a) rejection of claims 1-2, 7-9, 13-15 and 19-20 over the '091 patent is improper and Applicant requests that it be withdrawn.

#### **§103 Rejection: '091 Patent + '315 Patent**

Beginning on page 4 of the Office Action, claims 3, 6, 10, 12, 16 and 18 are rejected under §103(a) as being unpatentable over the '091 patent in view of U.S. Patent No. 5,881,315 to Cohen ("the '315 patent"). Applicant traverses.

Claims 3, 6, 10, 12, 16 and 18 depend from claims 1, 8 and 14, respectively, and as such exhibit at least the distinction of claims 1, 8 and 14 (noted above) over the '091 patent. The '315 patent fails to make up for the shortcomings of the '091 patent.

Thus, the §103(a) rejection of claims 3, 6, 10, 12, 16 and 18 as being obvious over the '141 patent in view of the '315 patent is improper. Withdrawal of the rejection is requested.

**CONCLUSION**

The issues in the case are considered to be resolved. Accordingly, Applicants again request a Notice of Allowability.

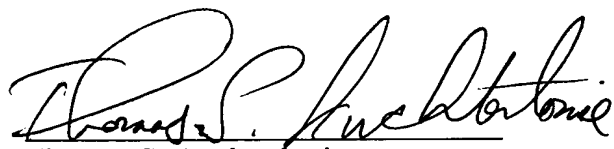
**Person to Contact**

In the event that any matters remain at issue in the application, the Examiners are invited to contact the undersigned at (703) 668-8000 in the Northern Virginia area, for the purpose of a telephonic interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-2025 for any additional fees under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

Terry Robison

By:   
Thomas S. Auchterlonie  
Reg. No. 37,275

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 8910  
Reston, VA 20195  
(703) 668-8000

TSA/krf:tsa